

REMARKS

Applicants have considered the March 28, 2008 Office Action, and the amendments above together with the comments that follow are presented in a bona fide effort to address all issues raised in that Action and thereby place this case in condition for allowance. Claims 1-20 were pending in this application.

In response to the Office Action dated March 28, 2008, claims 1 and 20 have been amended and new claims 21-22 have been added. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure as, for example, the depicted embodiments (FIG. 1) and related discussion thereof in the written description of the specification. Entry of the present Amendment is respectfully solicited. It is believed that this response places this case in condition for allowance. Hence, prompt favorable reconsideration of this case is solicited.

Claims 1-7, 13-16 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Meitav et al. (U.S. Pat. No. 6,576,365, hereinafter “Meitav”) in view of Fujita et al. (U.S. Pat. No. 6,225,779, hereinafter “Fujita”) and Okazaki et al. (JP 11-339828, hereinafter “Okazaki”). Applicants respectfully traverse the rejection.

Initially, it is noted that the Examiner incorrectly cited the Meitav patent on the PTO-892 form that accompanied the March 28, 2008 Office action. Applicants request a corrected PTO-892 with the next Office communication changing “US-6,586,365” issued to “Asrar et al.” to “US-6,576,365” issued to “Meitav et al.”

At the top of page 3 of the March 28, 2008 Office action, the Examiner asserts that “Meitav et al. further teach tabs for connection of the current collectors to other electrochemical

devices or circuitry (column 7 lines 32-34). These tabs are considered to be main circuit tab electrodes, . . .”

Turning to FIG. 4 of Meitav, for example, Applicants submit that the above referenced “tabs” are unitary tab structures 24, 34. In other words, the Examiner interprets the unitary tab structures 24, 34 as counterparts to the main circuit tab electrodes 19, 20 (see FIG. 1) of the instant claimed subject matter.

Independent claim 1 recites:

1. A stack type battery comprising:  
a plurality of unit cells stacked in a stack direction to be connected in series;  
**main circuit tab electrodes** disposed at both ends of the stack type battery and extending outward oppositely in a first direction intersecting substantially perpendicularly with the stack direction;

**shared voltage measurement tab electrodes** formed on the plurality of unit cells, respectively, to allow voltages to be measured for the plurality of unit cells such that the shared voltage measurement tab electrodes are disposed at deviated positions on a side surface of the stack type battery in the first direction intersecting the stack direction, the shared voltage measurement tab electrodes extending outward substantially perpendicularly to the main circuit tab electrodes extending outward; and

a bipolar electrode comprised of a positive electrode active material layer, a current collector and a negative electrode active material layer laminated in this order, the current collectors disposed at the both ends of the stack type battery being respectively connected to the main circuit tab electrodes.

Independent claim 20 recites:

20. A method of manufacturing a stack type battery, comprising:  
stacking a plurality of unit cells in a stack direction to be connected in series;  
providing **main circuit tab electrodes** disposed at both ends of the stack type battery and extending outward oppositely in a first direction intersecting substantially perpendicularly with the stack direction;  
providing **shared voltage measurement tab electrodes** on the plurality of unit cells, respectively, to allow voltages to be measured for the plurality of unit cells such that the shared voltage measurement tab electrodes are disposed at deviated positions on a side surface of the stack type battery in the first direction intersecting the stack direction, the shared voltage measurement tab electrodes extending outward substantially perpendicularly to the main circuit tab electrodes extending outward; and

providing a bipolar electrode comprised of a positive electrode active material layer, a current collector and a negative electrode active material layer laminated in this order, the

current collectors disposed at the both ends of the stack type battery being respectively connected to the main circuit tab electrodes.

Therefore, independent claims 1 and 20 require as essential elements, two types of tab electrodes: i) main circuit tab electrodes (19, 20); and ii) the shared voltage measurement tab electrodes (10 to 18, 210 to 218, 220 to 228, 310 to 318, 320 to 328, 710 to 718). Reference characters have been included in the remarks to assist the Examiner and are not intended to limit the scope of the present claimed subject matter.

Applicants submit that neither Meitav, Fujita nor Okazaki discloses or remotely suggests the two types of tab electrodes as required in independent claims 1 and 20. The Examiner failed to explicitly identify where Meitav discloses or remotely suggests main circuit tab electrodes and shared voltage measurement tab electrodes. The Examiner only discusses main circuit tab electrodes in the body of the rejection and neglects to address the separate and distinct shared voltage measurement tab electrodes. Further, neither Fujita nor Okazaki remedy the above argued structural deficiency of Meitav. Thus, even if the applied references are combined as suggested by the Examiner, the present claimed subject matter of independent claims 1 and 20 would not result. Obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge readily available to one of ordinary skill in the art. *In re Kotzab*, 217 F.3d 1365, 1370 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Accordingly, the rejection is not legally viable for at least this reason and should be withdrawn.

Claims 1 and 20 have been further revised to describe that the **main circuit tab electrodes** are provided and disposed at both ends of the stack type battery and extending outward oppositely in a first direction intersecting substantially perpendicularly with the stack direction. In FIG. 1 of the present specification, “a first direction” is directional arrow D1 while the “stack direction” is the directional arrow D3.

Claims 1 and 20 have been further amended in an attempt to clarify the structure of the shared voltage measurement tab electrodes (10 to 18, 210 to 218, 220 to 228, 310 to 318, 320 to 328, 710 to 718) relative to the main circuit tab electrodes (19, 20). In particular the independent claims describe that the shared voltage measurement tab electrodes (10 to 18, 210 to 218, 220 to 228, 310 to 318, 320 to 328, 710 to 718) extend outward substantially perpendicularly to the main circuit tab electrodes (19, 20) extending outward.

New dependent claims 21 and 22 have been added to further distinguish the main circuit tab electrodes 19, 20 from the unitary tab structures 24, 34 in FIG. 4 of Meitav. The term “a second direction” in each of new claims 21 and 22 is represented by directional arrow D2 in FIG. 1 of the present specification. The symmetry with respect to an imaginary center line bisecting the stack battery in a second direction (D2) of new claims 21 and 22 is clearly distinguishable from the point-symmetry of the unitary tab structures 24, 34 in FIG. 4 of Meitav.

Dependent claims 8-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Meitav in view of Fujita and Okazaki and further in view of Sato et al. (U.S. Pat. No. 6,589,690, hereinafter “Sato”). Applicants respectfully traverse.

Dependent claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Meitav in view of Fujita, Okazaki and Sato and further in view of Loutfly et al. (U.S. Pat. No. 6,146,791, hereinafter “Loutfly”). Applicants respectfully traverse.

Dependent claims 17-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Meitav in view of Fujita and Okazaki and further in view of Evers et al. (U.S. Pat. No. 6,271,646, hereinafter “Evers”). Applicants respectfully traverse.

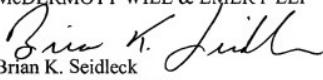
Applicants incorporate herein the arguments previously advanced in traversal of the rejection of claims under 35 U.S.C. § 103(a) predicated upon Meitav, Fujita and Okazaki. The remaining references to Sato, Loutfly and Evers do not cure the argued deficiencies of Meitav, Fujita and Okazaki. Thus, even if the applied references are combined as suggested by the Examiner, the claimed subject matter will not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988). Moreover, if any independent claim is non-obvious under 35 U.S.C. § 103(a), then any claim depending therefrom is non-obvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

It is believed that all pending claims are now in condition for allowance. Applicants therefore respectfully request an early and favorable reconsideration and allowance of this application. If there are any outstanding issues which might be resolved by an interview or an Examiner’s amendment, the Examiner is invited to call Applicants’ representative at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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